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ABSTRACT

Groups of children at three different developmental levels were each given a brief presentation by their classroom teachers regarding the Space Shuttle Challenger disaster, one day after the shuttle exploded. The standardized presentation included information about where the shuttle was launched, the crew, the special significance of Mrs. McAuliffe's participation, and what was currently known about the explosion. After the presentation, 20 minutes were allotted for comments and questions from students. Students' conversations and comments were recorded and analyzed according to the cognitive developmental level of the learner. Participants included a kindergarten class, one first grade class, two fourth grade classes, one ninth grade class, and one tenth grade class. Classes ranged in size from 22 to 31 students. Findings revealed that children attempted to understand the shuttle disaster by employing logic or reasoning consistent with their stage of cognitive development. It is concluded that, since its ramifications differently, intervention aimed at reducing disaster-induced trauma in the future might best be structured to address the developmental level of the children involved. (Author/RH)

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Developmental Level and Children's Responses to the Explosion of the Space Shuttle Challenger

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ABSTRACT

Groups of children at three different developmental levels were each given a brief presentation by their classroom teacher regarding the Space Shuttle Challenger disaster, one day after the explosion. The standardized presentation included the following information: where the shuttle was launched, some background information on the crew, the special significance of Mrs. McAuliffe's participation, and what was currently know about the explosion. Twenty minutes was then alotted for comments and questions. Conversations and comments were recorded and subsequently analyzed according to the cognitive developmental level of the learner, employing primarily a Piagetian perspective.

It was over in 74 seconds! Elation and the reality of sending the first school teacher into space had been converted into pain and anguish by the witnessing and the immediate announcement of the worst disaster in the space history of the United States. That millions of spectators had gathered on the morning of January 28, 1986 both at Cape Canaveral and around their television sets at home and schools intensified both the initial excitement and awe, immediately followed by disbelief, horror and shock.

In those seconds of witnessed disaster and loss, there appeared to be a sudden coming together of people - especially school children - as they discussed what had taken place in front of their eyes. Both the preparation of the launch wherein the teacher aboard, Christa McAuliffe, would present a science lesson from the outer frontiers of space, combined with the saliency of the mission that had already been delayed a number of times, contributed to the grief. That the media would repeatedly present the beauty and horror of the flaming debris of the explosion - always with the last instructions ever to be given to the shuttle group, "Challenger, go with throttle up!" all

contributed to the initial numbness experienced by the viewers.

With countless children viewing the launch, there were immediate concerns of how these young viewers would be able to cope with this experience. It is not the intent of the present writers to trivialize either the event or even the outpouring of 'good intentions' on the part of educators at a moment when the nation appeared to 'come together' as many journalists were wont to freeze that moment in history as they did the Kennedy assassination. Nor is it the intent here to focus on how children who witnessed the event should be "debriefed". Rather, the present assessment of how children focused on the explosion of the shuttle examines how children interpret and attempt to find structure or even meaning in events that are strongly ambiguous and emotionally numbing. It is the intention of the authors to focus on the reasoning ability of young children. However, a group of high school students are included in the study to the extent that this group offers the necessary contrast to preoperational and concrete operational children by providing examples of reasoning and logic at the opposite end of the Piagetian Spectrum.

Measured in terms of human lives, there obviously have been greater disasters. But because of the publicity and involvement of hundreds upon thousands of school children, few were as spectacular. And because these legions of children were watching how seven people at the apex of manned space-flight suddenly and inexplicably could vaporize in a ball of fire before their very eyes, it seemed appropriate to try to assess how children of varying developmental levels could find order and meaning in this riddle. How could a child

attempt to interpret this tragedy to himself and others? What would be the immediate effects - if any- on the viewers?

The Present Study

The following comments were collected in response to a thirty to forty minute presentation by each of six teachers to their individual classrooms, ranging from grades K-10, regarding the explosion of the space shuttle Challenger. The six teachers either met with the senior author or discussed the project by telephone, in an attempt to design a twenty to twenty-five minute presentation which would be given by each teacher to her respective pupils one day following the shuttle explosion. Each teacher agreed to cover the following information: where the shuttle was launched, some background information on the crew, the special significance of Mrs. McAuliffe's participation, and what was known about the explosion. In the remaining fifteen to twenty minutes of classtime, there would be time allotted for questions and comments. Teachers were encouraged to bring photos and newspaper articles into class and to construct a display table in hopes that the concrete visuals would encourage questions and comments. Teachers were discouraged from making value judgments regarding future teachers in space, the value of manned space missions and government responsibilities regarding the tragedy.

Participants included a kindergarten class, one first grade class, two fourth grade classes, one ninth grade class, and one tenth grade class. The classes ranged in size from 22 students to 31 students.

Because of time demands to obtain and present data in the most direct and fastest manner following the explosion, the interpretations

here were - by necessity - of a qualitative fashion. The responses shown below are samples at each age level followed by differences and comparisons of how children at differing age and developmental levels reacted and attempted to sort out what they had seen and how they felt. Groupings according to preoperational, concrete, and formal children are therefore assumed by virtue of age, rather than by assessment with any type of cognitive developmental test.

Results and Discussion

(Presumably preoperational reasoners), Grades K and 1, generally five and six year olds, expressed the following concerns:

a) Concerns reflecting egocentrism - According to Piaget (1930), early childhood is characterized by egocentric thought: thinking displaying children's inability to see any point of view other than their own. Children are thought to be incapable of putting themselves in another person's position and their behaviors do not allow them to separate self from environment. This type of thinking often results in children reasoning that everything in the world was created to meet their own personal needs. When asking a preoperational child why lakes exist, for example, it would not be uncommon for the child to respond, "For me to swim in". This type of thinking is illustrated by one five year old child's comment, "People go to space to find stars and foods for people".* (See Appendix I for a list of comments made by 5 and 6 year olds.) list of comments made by 5 and 6 year olds.)

b) Concerns reflecting collective monologue - Another aspect of egocentrism illustrates the preoperational child's tendency to engage in collective monologue. This type of communication involves two or

more children each expressing their own individual thoughts or feelings, without reference to the responses of others. Neither child has the capacity to listen to the response of the other, process the information into his belief system, and then alter his response dependent upon the comments of the other child. Often, collective monologues have the appearance of a true conversation, because often each child speaks in turn, one at a time, as if addressing comments to the person making the previous response. Closer examination, however, reveals that each child often continues with his own line of reasoning and/or content, with no regard to other speakers. This type of egocentrism was illustrated numerous times here, as children continued to speak about the space tragedy as "The rocket died" vs. "The gas was used up" vs. "The rocket fell", etc. despite comments by teachers or other children offering evidence to the contrary.

c) Comments reflecting immanent justice - Another construct associated with the thinking of preoperational children is the assumption that there exists a system of law and order in the universe insuring that people "get what they deserve" - a notion of immanent justice. When asked why a child falls down, a preoperational child might respond by stating that "Children shouldn't run". Whenever a wrong is committed or a disaster occurs, preoperational children often explain these acts by implying the victim received his due. This type of thinking appears to be consistent with the comment, "People shouldn't go in the sky".

d) Comments reflecting animism - Animism is a concept which illustrates misconceptions that preoperational children often display, in which they tend to attribute life to inanimate objects. Again,

related to their egocentricity, and conception of self as the center of the universe, preoperational children often conclude that trees, boats, cars, etc. are alive. This type of thinking is demonstrated when preoperational children are asked where boats go at night, and typically respond, "To sleep". When asked why trees have leaves, preoperational children typically respond, "To keep them warm". This type of thinking is illustrated here by the child indicating that the "rocket died".

e. Language displaying a narrow range of emotional differentiation - A major developmental task of the preoperational period is the attainment of language fluency. Much of the preoperational period is devoted to learning grammar, sentence structure, subject - verb agreement, the formation of plurals, etc.. Learning an extensive vocabulary is generally associated with the later portion of the preoperational period and the concrete operational years. Thus, children in the early and middle years of the preoperational period typically have a limited range of vocabulary in which such words as happy, sad, and mad are used to express a wide range of emotions. Typically, it is not until the concrete or formal operational years that the finer gradations are learned and applied: angry, annoyed, satisfied, content, etc. The inability to display a wide range of emotions is evident as one child described the shuttle explosion as "sad", and then repeated "very, very, very sad". The adjective very is repeated continually and overemphasized to display emotion as opposed to altering or introducing a new adjective.

f. References to artificialism - Another misconception frequently occurring during the preoperational period is the notion of

artificialism: the misconception that everything in the world, including natural events or objects, was made by man. There are several comments made by children here which imply thinking reflecting artificialism including, "somebody 'shouldda' moved the clouds," offered as an explanation for the shuttle explosion.

g. Comments suggesting a well-defined and mutually exclusive conception of the world - Preoperational children typically display a very "black vs. white" and "either-or" conception of the world and why events take place. Comments such as, "The people went to heaven", "The people went to the ocean", and "The people went to visit they moms" illustrate that not only do the children appear to be satisfied by one-sentence, simplistic responses, but they also displayed little hesitancy in responding to abstract questions regarding the fate of the crew. They appeared to engage in little reflection and rarely questioned each other in an attempt to clarify a given response.

The egocentric nature of the preoperational child, coupled with a cognitive developmental level rendering him incapable of understanding sophisticated vocabulary, led to numerous instances where vocabulary was employed, yet not understood. The preoperational child displayed no hesitancy in using words such as "splosions", and "boosters", despite the fact that they appeared to have little meaning or were employed out of context.

h. Emergence of symbolic functioning - The preoperational period depicts the emergence of symbolic functioning: referencing in which the child is capable of creating a mental image to depict an object not present. Preoperational children's play behavior often reflects symbolic functioning as they often engage in "make-believe"

play. Numerous examples were noted of the child's inability to differentiate among "make-believe" play, cartoons, and reality. Several children cited examples of explosions related to He-man, Shera, and Gobot cartoons.

i) Distractability and Transductive Reasoning - One child's comments regarding an explosion on a television cartoon lead him to a series of comments about his favorite cartoon. Preoperational children are highly distractable, even by their own highly egocentric speech. Thus, there is a tendency to jump from topic to topic even when the relationship between the topics is weak or -at best- tangential, moving the child away from the original intent - a discussion of the space shuttle disaster. Preoperational reasoning often moves from the specific to the specific (transductive reasoning), while the reasoning of adults typically flows either from the general to the specific (deductive), or the specific to the general (inductive). A preoperational child might conclude, by virtue of transductive reasoning, that if water is running in the sink, Daddy must be shaving. Thus, transductive reasoning leads preoperational children to numerous false conclusions because it is largely illogical. Here, transductive reasoning was observed in the conclusion, "They crashed up because they caught on fire".

j) Beginning of reliance on outside authority - As children approach the end of the preoperational period and egocentrism continues to decline, they often learn that the opinion of an outside authority is thought to carry more weight than their own. An early preoperational child engaged in an argument might say, "I'll hit you" to another child; an older preoperational child might state, "My daddy

doesn't like you". Thus, the child learns that the opinions of those in a higher position of power and authority offer stronger, more effective threats. This type of reasoning is evident when one child referred to the shuttle explosion by stating, "Even my dad said it was sad".

k. Reliance on intuitive thought - Preoperational reasoners are often characterized more by intuitive thought than formal logic. When pressed to explain a situation the child does not understand, preoperational children often rely on intuition. The comment, "The rocket fell out of the sky when the gas was allgone" illustrates this notion.

l. Simple solutions for complex problems - Preoperational children often display the notion that objects and individuals are easily replaced, that negative occurrences are easily undone, and the harm done is easily cancelled out, returning the situation to the "status quo". For example, preoperational children inadvertently poking a parent in the eye, often do not understand why the parent's eye continues to tear, despite the fact that "they said they were sorry". "I'm sorry" and "I didn't mean it" are thought to negate harm done.

Comments such as "We should get a new rocket and do it again" appear to support this notion. Also, one five year old child asks, "Does this mean we don't get the space lessons?"

In addition to the developmental analysis of the children's responses, one might also consider examining how the child's conception of death changes according to the increased cognitive awareness of the developing child.

Before age four, notions of death held by children are limited and generally evoke remarks pertaining only to sadness or sorrow, unless the death is personal, as in the death of a family member. By five or six years of age, children generally avoid dead things such as birds or animals, but generally view themselves as always living. Often at age five, children utilize facts about death illogically. Being told about a presidential assassination, children might remember that information and when confronted with the death of another person might ask, "Who shot him?" By age six, children typically become more emotional about death or pictures of dead people/animals. Ilg and Ames (1955) pointed out that "I'll kill you" is often noted as a preoperational child's threat while fighting.

By age eight, interest in death is frequently centered around causes of death, such as overeating, disease, violence or aging. During the period between nine and fifteen years of age, advanced cognitive abilities allow children to become concerned with attitudes about death and its consequences.

These stages accurately summarize the majority of comments and concerns that emerged here. A limited understanding of death, a lack of understanding of the permanent nature of death, and overreliance on words like "sad" or "sorrow" were evident in the responses of the preoperational children. The concrete operational children displayed concerns related to the cause of death, and displayed lowered egocentrism to the extent that they articulated more concern for the families of the astronauts. The fourteen and fifteen year old subjects presumably formal operational or transitional, displayed concerns relating to the consequences of death and the abstract

meaning of life. (See Appendix 1 for a more detailed list of comments made by preoperational children.)

Nine and Ten Year Old Subjects: (presumably concrete operational)

*See Appendix II for a complete list of comments.)

a) Logical concerns relating to cause and effect - Concrete operational children expressed numerous concerns relating to potential problems responsible for the explosion. These concerns are consistent with the concrete operational child's ability to understand causality and directionality of cause and effect relationships. Their reasoning appears to be more logical, whereby the understanding of the cause of the disaster will decrease the odds of it reoccurring. This position might be best illustrated by comments such as, "Next time, we should give them more training".

b) Reduction of egocentrism - Concern for the victim's families reflects the decrease in egocentrism or the ability to engage in perspective taking. "It is sad that Mrs. McAuliffe's children lost their mother", commented one concrete operational child.

Although egocentrism is not as evident here as compared to the highly egocentric responses of the preoperational children, the inability to recognize a wide range of positions regarding the future of the space program illustrates a form of egocentric thought. Concrete operational children still demonstrated clear and mutually exclusive positions such as "We should never send people into space again", "We have to go for it again", or "People have to follow their dreams". None of these comments have qualifiers or exceptions listed. They are egocentric to the extent that there is no recognition that

others, having examined the evidence, might reach different conclusions regarding the future of manned space travel.

At the most cursory level of inspection, one is immediately confronted with two additional aspects of the concrete reasoner's egocentrism: 1) the almost total focus on Mrs. McAuliffe, the first teacher on a shuttle, to the complete exclusion of the six other members of the crew; and 2) personal investment combined with some evaluation of how could this take place or how could anyone allow human beings to be put into orbit short of knowing perfect conditions. Concrete reasoners related to the shuttle crew, especially Mrs. McAuliffe, in an egocentric manner: by memorizing details about her, her family, and her hometown, it were as though they had a personal relationship with her.

c) Preoccupation with a sense of fairness or balance - Concrete reasoners tried to make sense out of the space tragedy by searching for a sense of 'fairness' or 'balance' wherein life only would allow good things to happen to good people. Comments such as "This whole thing wasn't fair" and "It's not fair that she died so young" illustrate this appeal. Once the concrete child becomes aware of law and order, he typically believes that laws should be strictly enforced. Making exceptions would appear to be equated with opening Pandora's box; ensuring total chaos.[1]

d) Reducing feelings of helplessness; attempting to reassert control through mastery of detail - Concrete operational children faced with the task of making sense of this disaster, often asked many questions about the details of the explosion. "If they had known things were wrong 5 seconds earlier, would the crew have been saved?"

[1]This type of reasoning appears to be consistent with Kohlber's (1976) stages of moral development.

Children spoke of the construction of the rocket boosters, the effects of freezing temperatures, and previous postponements as if an understanding of every detail was the only way to ensure that this would never reoccur.

e) Quoting outside authority figures - By the end of the preoperational period, it is not uncommon for children to sanction their point of view by adding "Even my dad (or mom) thinks/said so." As previously discussed, this indicates a reduction of egocentrism to the extent that the child now realizes that the opinions of others in a position of higher authority carry more weight than his own. Concrete reasoners in this study appeared to continue this line of reasoning by citing the positions of numerous others, including not only parents, but the President, their teachers, newspaper reporters, etc. In addition to citing a wider reference group than the preoperational children, they also employed direct quotes, as if to further strengthen their position.

f) Expanded meaning of life - The comments of the concrete operational children, when compared to the preoperational comments regarding the shuttle explosion, demonstrate an expanded meaning of life. Concrete children spoke of the notion of "following one's dreams", "going for it", and the "pride" that Mrs. McAuliffe's family should feel regarding the way she gave her life. The concrete learners were clearly more introspective and questioning than were the preoperational subjects. They also appeared to view life as a continuum with the past influencing the present, and the present giving meaning to the future. Their comments clearly display positions of perspective and interrelationship.

g) Notion of future orientation and sacrificing for the greater good - Several concrete reasoners stressed the notion that sometimes one must make sacrifices in the present for long term gains; the country is sad now, but we will learn from our mistakes and accomplish much in the future. This notion is probably related to the concrete reasons ability to delay gratification and set goals. Concrete reasoners also spoke of serving one's government. They acknowledged responsibilities as well as rights. Concrete reasoners often made distinctions between groups, whereas preoperational children did not. For example, one child agrees that "people should be brave", but then qualifies that statement by saying despite that, "I don't want my family to go, though." As cognitive abilities increase, and egocentrism declines, the child is better able to separate self from others and better able to cite exceptions to any rule.

Fourteen and Fifteen Year Olds: (Presumably Formal Operational or Transitional) *See Appendix III for a complete list of comments.)

a) Increased ability to think hypothetically and consider numerous aspects to a problem - Fourteen and fifteen year old reasoners spoke of the fact that time, energy, and money would have been wasted if we do not continue the space program. Several students systematically explored positions regarding future manned space missions.

b) Increased ability for abstract thought - Several students stressed the value of having goals in life, the value of having left one's mark on society, the lesson learned by society, etc. Also discussed were how viewers were shocked, and how long individuals

lingered at the scene in disbelief. There appeared to be increased interest in psychological issues relating to viewing a disaster.

c) Reduction of egocentrism - Reduction of egocentrism allowed students to move away from discussing not only this disaster, but also other situations in which the country was facing tragedy (assassinations, wars, etc). High school students were able to draw parallels as well as compare and contrast a variety of other situations.

d) Ability to be critical/note inconsistencies - Students discussed coverage of the event by the press. Some students spoke of exploiting the famalies by invading their privacy. Others spoke of the fact that the news only focused on McAuliffe, as if the other families were not facing the same trauma.

Conclusions

Upon examining the comments provided by the children in each of the three age groupings, it becomes apparent that children attempted to understand the Shuttle disaster by employing logic or reasoning consistent with their stage of congitive development. This finding appears to be consistent with result findings suggesting that children respond both to their own trauma the trauma of others by offering explanations reflecting their developmental perspective.

Terr (1983) examined children surviving the Chowchilla kidnapping in California in 1976. The comments she presented as examples of post-traumatic stress syndrome display similar differences according to developmental level. For example, one 11 year old female described the experience as, "scarier than a scary movie - scarier than when I

cut my finger with a knife." This statement is similar to the reports obtained by the concrete operational group here displaying concern for relativity and contrast. Other comments by older children in the Terr study reflected concerns for integrating the kidnapping experience into their lives, putting things into perspective, learning about themselves and the value of life as the result of experience, etc. Thus, a similiar pattern emerges among the high school students: a future orientation, the reduction of egocentrism, an increase in perspective-taking, etc.

Other trends found in the literature pertaining to children's conception of their government are also noted in this study. Torney (1977) suggested that young children tended to view government officials and representatives as "all knokwing, always powerful, in control, and protective". The 5 and 6 years olds in this study generally portrayed this view: The government or the President will fix things; the problems will be quickly fixed by those in power.

By middle childhood, children begin to take cues regarding the political climate and political decisions from the enriornment. Children look toward logic and rules in order to feel protected. If one engages in the appropriate planning, success should follow. Torney cited an example surrounding the Cuban missile crisis in which a 9 year old boy said: "I though Castro and Kennedy had made up so there wouldn't be a war". Children at this level generally integrate their interpretation of world affairs with expectations of the future. The children in this study displayed similar concerns regarding the Shuttle disaster.

"How could such a nice person (McAuliffe) die?"

"How could such a young person die?"

"If they had known things were wrong 5 seconds earlier, would they have been saved?"

"It's not fair."

"Maybe they needed more rehearsals."

These comments are consistent with Torney's findings regarding a concern for fairness, order, logic, and context displayed during middle childhood. Escalona (1982) suggested that children during the middle childhood years are interested in those aspects of society dealing with violence, conflict, and security because they reflect the child's own developmental concerns. Children of this age are taught to think before they act, to value altruism, to curb impatience, aggression, and grief, and that managing the self will bring great rewards. Thus, events like the Shuttle disaster are especially upsetting because they not only reflect an error in judgment on the part of "officials", but they call into question the rules of order and logic which are so important during these years.

Finally, Torney suggested that as children grow older, they have less of a tendency to perceive the government, associated agencies, and individuals as infallible. According to a Piagetian framework, one might interpret this as suggesting that as egocentrism is reduced, the individual learns that there are exceptions to every rule: even qualified professionals make errors. The high school students in this study appeared to exemplify this position. Comments included:

"You have to expect that sooner or later something bad will happen."

Perhaps this understanding of human fallability lead them toward the future orientation commonly displayed:

"Are they going to do anything in their memory?"

"If we don't move forward, we've wasted a lot of time and money."

"They (the astronauts) brought us all closer together."

Although the contrasting manner in which children of differing developmental levels evaluate disasters is in and of itself engaging, perhaps the issue of greater significance is how this information may be used by educators and psychologists when designing programs for children experiencing or observing a catastrophe. This study would suggest that since the various groups of children conceptualize the disaster and the ramifications of the disaster differently, perhaps intervention aimed at reducing any potential deleterious effects might best be structured to address the developmental level of the children in question.

APPENDIX I

Quotes from the five and six year olds

1) "Where did the people go?" (asked one child) "to heaven" (responded a second child) "to the ocean" (responded a third child)
"to visit they moms" (responded a fourth child)

2) "When did the 'splosion' happen?"

3) "It was a very, very, very sad thing."

4) "It's sad the rocket died."

5) "Why couldn't the whole family go?"
"No room" (responded a second child)

6) "I like 'splosions 'cept for when people are in them."

7) "We sent them up there to get some moon rocks the 'governments needs'".

8) "Even my dad said it was sad."

9) "The children cried cause their parents went to heaven."

10) "Why did God make this happen?"

11) "Maybe somebody put a bomb in the rocket."

12) "They fell out of the sky when the gas was all used up."

13) "My dad 'couldda fixed' that plane right."

14) "Can kids go to the funeral?"

15) "They 'crashed up' because they caught on fire."

16) "They should get a new rocket and do it again."

17) "People shouldn't go in the sky."

18) "Somebody 'shouldda' moved the clouds."

APPENDIX II

Quotes from the nine and ten year olds

1) "Maybe we shouldn't have launched when it was freezing."
2) "If they had know things were wrong 5 seconds earlier, would they have been saved?"
3) "Why couldn't 'the captain' call for help on the radio?"
4) "It was sad that Mrs. McAuliffe's children lost their mother."
5) "Mrs. McAuliffe's daughter didn't want her mom to go because she was scared or something."
6) "Maybe they needed more rehearsals."
7) "My father said someone at NASA messed up."
8) "I don't think we should send anymore teachers up."
9) "No more people should go into space - just equipment."
10) "It's not fair that she (McAuliffe) died so young."
11) "It's not fair that these children lost their parents."
12) "They (the crew) had a goal and they went for it."
13) "The astronauts tried to help the government and all the people here on earth."
14) "We learned a lot from this."
15) "I would want my family to go."
16) "I think they were really brave."
17) "Even the Russians felt bad."
18) "I felt very sad yesterday. I thought about this a lot."
19) "We read the articles about the teacher in space for the last 6 months."
20) "My uncle knows the man (Jarvis) from Buffalo."
21) "We should try again or we'll never get anywhere."

APPENDIX III

Quotes from the fourteen and fifteen year olds

1) "If we don't move forward, we've wasted a lot of money and time."
2) "You have to expect that sooner or later something bad will happen."
3) "They (the crew) had really great goals - I admire them."
4) "They brought us all closer together."
5) "Are they going to do anything in their memory?"
6) "This reminds me of when the President was shot and the whole country was shocked."
7) "The press should have covered more on the other families - not just McAuliffe's." "It doesn't seem right."
8) "The children watching must have been shocked."
9) "I don't think it's fair for a teacher to die this way. She really wasn't a trained astronaut. Maybe she didn't understand how dangerous it was."
10) "They should investigate why this happened."
11) "Maybe we'll never really be sure."
12) "Mrs. McAuliffe's students really loved her. They'll never forget her."
13) "It's scary. We could die at anytime. It makes you think about what you want to do with your life."
14) "The press shouldn't bother the families for too many interviews. It's too upsetting."

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